

CLAIMS

What is claimed is:

1. A method of speech recognition, comprising:
receiving voice input;
associating a confidence measure with each of a set
of stored patterns according to how closely the
stored pattern matches the voice input;
5 acquiring location information; and
modifying at least one of the confidence measures
based upon the location information.
2. The method of claim 1, wherein the voice input
comprises a spoken label corresponding to an electronic
address.
3. The method of claim 2, wherein the electronic
address comprises a telephone number.
4. The method of claim 2, wherein the electronic
address comprises an e-mail address.
5. The method of claim 2, wherein the electronic
address comprises a Uniform Resource Locator.
6. The method of claim 1, wherein acquiring location
information comprises the use of a Global Positioning
System receiver.

7. The method of claim 1, wherein acquiring location information comprises the use of terrestrial cellular positioning.

8. The method of claim 1, wherein acquiring location information comprises examining the identification code of one or more base stations.

9. The method of claim 1, wherein acquiring location information comprises examining one of an area code, exchange code, or country code.

10. The method of claim 1, wherein the location information comprises the current location of a mobile communication device and each stored pattern corresponds to a stored telephone number.

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11. The method of claim 10, wherein each stored telephone number corresponds to a location.

12. The method of claim 11, wherein the location information further comprises the distance between the current location of the mobile communication device and the location corresponding to each stored telephone number.

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13. The method of claim 12, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which the corresponding distance is less than a predetermined threshold.

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14. The method of claim 12, wherein modifying comprises decreasing the confidence measure associated with each stored pattern for which the corresponding distance is greater than or equal to a predetermined threshold.

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15. The method of claim 12, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which the corresponding distance is less than a predetermined threshold and decreasing the

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confidence measure associated with each stored pattern for which the corresponding distance is greater than or equal to the predetermined threshold.

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16. The method of claim 10, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number corresponds to a geographical region within which the current location of the mobile communication device lies.

17. The method of claim 16, wherein the sub-part is one of an area code, exchange code, or country code.

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18. The method of claim 10, wherein modifying comprises decreasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number does not correspond to a geographical region within which the current location of the mobile communication device lies.

19. The method of claim 10, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number corresponds to a geographical region within which the current location of the mobile communication device lies and decreasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number does not correspond to the geographical region.

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20. The method of claim 10, wherein the location information further comprises a record of previous telephone calls made using the mobile communication device and the corresponding locations from which the previous telephone calls were made.

21. The method of claim 20, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which the corresponding stored telephone number has been called from the current location of the mobile communication device with a frequency exceeding a predetermined threshold, based upon the record of previous calls.

22. The method of claim 20, wherein modifying comprises decreasing the confidence measure associated with each stored pattern for which the corresponding stored telephone number has been called from the current

5 location of the mobile communication device with a frequency less than or equal to a predetermined threshold, based upon the record of previous calls.

23. The method of claim 20, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which the corresponding stored telephone number has been called from the current
 5 location of the mobile communication device with a frequency exceeding a predetermined threshold, based upon the record of previous calls, and decreasing the confidence measure associated with each stored pattern for which the corresponding stored telephone number has
 10 been called from the current location of the mobile communication device with a frequency less than or equal to the predetermined threshold.

24. The method of claim 10, wherein the location information further comprises user preferences identifying, for at least one designated location, at least one of the stored telephone numbers that is most
 5 likely to be called from the designated location.

25. A method for voice-dialing in a mobile communication device, comprising:

receiving voice input comprising a spoken label
 5 corresponding to a desired telephone number;

associating a confidence measure with each of a set
of stored patterns according to how closely the
stored pattern matches the voice input, each pattern
10 corresponding to a stored telephone number;

computing the difference between the greatest and
next-to-greatest confidence measures;

15 dialing the stored telephone number corresponding to
the greatest confidence measure if the difference
exceeds a predetermined threshold; and

acquiring location information comprising the
20 current location of the mobile communication device,
modifying the confidence measures corresponding to
one or more of the stored telephone numbers based
upon the location information, and dialing the
stored telephone number corresponding to the
25 resulting greatest confidence measure if the
difference is less than the predetermined threshold.

26. The method of claim 25, wherein acquiring location
information comprises the use of a Global Positioning
System receiver.

27. The method of claim 25, wherein acquiring location
information comprises the use of terrestrial cellular
positioning.

28. The method of claim 25, wherein acquiring location information comprises examining the identification code of one or more base stations.

29. The method of claim 25, wherein each stored telephone number corresponds to a location, and the location information further comprises the distance between the current location of the mobile communication device and the location corresponding to each stored telephone number.

30. The method of claim 29, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which the corresponding distance is less than a predetermined threshold.

31. The method of claim 29, wherein modifying comprises decreasing the confidence measure associated with each stored pattern for which the corresponding distance is greater than or equal to a predetermined threshold.

32. The method of claim 29, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which the corresponding distance is less than a predetermined threshold and decreasing the confidence measure associated with each stored pattern for which the corresponding distance is greater than or equal to the predetermined threshold.

33. The method of claim 25, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number corresponds to a geographical region within which the current location of the mobile communication device lies.

34. The method of claim 33, wherein the sub-part is one of an area code, exchange code, or country code.

35. The method of claim 25, wherein modifying comprises decreasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number does not corresponds to a geographical region within which the current location of the mobile communication device lies.

36. The method of claim 25, wherein modifying comprises increasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number corresponds to a geographical region within which the current location of the mobile communication device lies and decreasing the confidence measure associated with each stored pattern for which a sub-part of the corresponding stored telephone number does not correspond to the geographical region.

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37. The method of claim 25, wherein the location information further comprises a record of previous telephone calls made using the mobile communication

device and the corresponding locations from which the
5 previous telephone calls were made.

38. The method of claim 37, wherein modifying comprises
increasing the confidence measure associated with each
stored pattern for which the corresponding stored
telephone number has been called from the current
5 location of the mobile communication device with a
frequency exceeding a predetermined threshold, based upon
the record of previous calls.

39. The method of claim 37, wherein modifying comprises
decreasing the confidence measure associated with each
stored pattern for which the corresponding stored
telephone number has been called from the current
5 location of the mobile communication device with a
frequency less than or equal to a predetermined
threshold, based upon the record of previous calls.

40. The method of claim 37, wherein modifying comprises
increasing the confidence measure associated with each
stored pattern for which the corresponding stored
telephone number has been called from the current
5 location of the mobile communication device with a
frequency exceeding a predetermined threshold, based upon
the record of previous calls and decreasing the
confidence measure associated with each stored pattern
for which the corresponding stored telephone number has
10 been called from the current location of the mobile

communication device with a frequency less than or equal to the predetermined threshold.

41. The method of claim 25, wherein the location information further comprises user preferences identifying, for at least one designated location, at least one of the stored telephone numbers that is most likely to be called from the designated location.

42. A communication device, comprising:

a speech recognition circuit that provides confidence measures;

circuitry for acquiring location information; and

logic for modifying the confidence measures based on the location information.

43. The communication device of claim 42, wherein the circuitry for acquiring location information comprises a Global Positioning System receiver.

44. The communication device of claim 42, wherein the circuitry for acquiring location information derives at least a portion of the location information using terrestrial cellular positioning.

45. The communication device of claim 42, wherein the circuitry for acquiring location information derives at

least a portion of the location information based on the identification code of one or more base stations.

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46. The communication device of claim 42, wherein the circuitry for acquiring location information derives at least a portion of the location information from one of an area code, exchange code, or country code.

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47. A communication device, comprising:

means for recognizing speech and producing associated confidence measures;

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means for acquiring location information; and

means for modifying the confidence measures based upon the location information.

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48. The communication device of claim 47, wherein the means for acquiring location information comprises a Global Positioning Receiver.

49. The communication device of claim 47, wherein the means for acquiring location information comprises terrestrial cellular positioning.

50. The communication device of claim 47, wherein the means for acquiring location information comprises the identification code of one or more base stations with which the communication device is in communication.

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51. The communication device of claim 47, wherein the means for acquiring location information comprises one of an area code, exchange code, or country code.

52. A mobile communication device, comprising:

a microphone;

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a speech recognition circuit that receives input from the microphone and provides confidence measures;

an RF transceiver;

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an antenna electrically connected to the RF transceiver;

a circuit for acquiring location information;

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an input device;

a memory;

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a display;

a microprocessor;

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a data bus through which the microprocessor communicates with the speech recognition circuit,

the RF transceiver, the circuit for acquiring location information, the input device, the memory, and the display; and

30 program instructions stored in the memory and executable within the microprocessor for modifying the confidence measures based on the location information.